

Work Order ID **126524** ¹

126524

Page 1

Wednesday, November 12, 2014 10:37:42 A

Item ID: D3649-041

Accept

N900040100

Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Tunnel Bottom Panel Assy

Start Date: 11/12/2014 Start Qty: 5.00

5

Cust Item ID:

Required Date: 11/12/2014 Req'd Qty: 5.00

5

Customer:

Reference:

Approvals: Process Plan: MCS

Date: 14-11-12 Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run Start ***NR1***

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr

Revision Nbr

D3649

Rev B

100

0.00

100

FLOW WATER JET

Waterjet

Memo

0.00

FLOW CNC Waterjet

1-Cut as per Dwg D3649 Dwg Rev: B Prog Rev: B 2-

Deburr if necessary

304.018"

5 2 14-11-13
PTO —>

110

QC2- Inspect parts off machine FAI/FAIB

0.00

110

QC

Memo

0.00

Quality Control

5 2 14-11-13

120

QC8- Inspect parts - second check

0.00

120

QC

Memo

0.00

Quality Control

6 2 14-11-13

NOV 14 2014

DQA:

Date:

15/05/06



QA Closed:

Date:

15/04/30

WORK ORDER NON-CONFORMANCE / UPDATE

Work Order update only ☐

Work Order: <u>126524</u>	DISPOSITION		AGAINST DEPARTMENT/PROCESS			
Part No. <u>D3649-041</u>	Rework ☐	Skid-tube ☐	Crosstube ☐	Water Jet ☒	Engineering ☐	
NCR No. <u>15-4842</u>	Scrap ☒	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	
	Use-as-is ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	
	Suspected Unapproved ☐	Large Fab ☐	Composite ☐	Supplier ☐		

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design	14-11-13	100	2x	1x part machine malfunction. Jet never shut off when moving to next part, causing large gouge across part.	S	Scrap + destroy.	DAS 23 9-89	NOV 14 2014 D 31 9-89	45 15/01/07
Doc/Data					Q12042 15/01/07		14-11-13		
Equip/Tooling	X			1x PART HOLES TOO LARGE. SHOULD BE @ 0.098", some at 0.108" → adjust offset.	S	adjust offset, change ruby + tip. drill out if necessary.	1/45	250.41 72-500	
Handling/Pre					Q12042 15/01/07				
Material									
Operator									
Offset/Setup	X								
Process									
Supplier									
Training									
Transport									
Unapproved									

PC opening

FAULT CATEGORY

Landing Gear	General		
☐ Bending	☐ Bend	☒ Folio/Program	☐ Outside Dimensions
☐ Centre Not Concentric	☐ BOM/Route	☐ Grain	☒ Over/Under tolerance
☐ Cracks	☐ Broken/Damage/Defect	☐ Hardware	☐ Part Incorrect
☐ Crimp/Kink/Ripple/Wave	☐ Burrs	☐ Inspection Incomplete/Unqualified	☐ Part Lost/Missing
☐ Cuffs	☐ Contamination	☐ Instructions Incomplete/Unclear	☐ Part Moved
☐ Crushing	☐ Countersink	☐ Misaligned/off center	☐ Positioned Wrong
☐ Heat Treat	☐ Cut Too Short	☐ Mislabeled	☐ Power Loss/Surge
☐ Inspection Strip in Tube	☐ Drawing	☐ Misread	☐ Pressure/Forced
☐ Marks/Chatter	☐ Drill Holes	☐ Off-set	☒ Set-up
☐ Turning Sequence	☐ Finish	☐ Out of Calibration	☐ Temperature/Cure
☐ Wave/Twist in Tube	☐ Fit/Function	☐ Out of Sequence	☐ Weld
			☐ Wrong Stock Pulled
			☐ Other

Work Order ID 126524

126524

Page 2

Wednesday, November 12, 2014 10:37:43 A

Item ID: D3649-041 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Tunnel Bottom Panel Assy
 Start Date: 11/12/2014 Start Qty: 5.00 ***5*** Cust Item ID:
 Required Date: 11/12/2014 Req'd Qty: 5.00 ***5*** Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130 *130* Brake NC Brake NC	NC BRAKE Memo Form as per Dwg D3649	0.00 0.00			DAS 30 9-89	6			11/12/14
140 *140* QC Quality Control	QC5- Inspect part completeness to step on W/O Memo	0.00 0.00				(6)			DAS 38 9-89 DEC 17 2014
150 *150* Small Fab Small Fab	Small Fab Memo 1- Form dimple for MS20427M3 rivet per dwg D3649*****ensure dimples are on the proper side*****2-Assemble nutplates as per dwg D3649	0.00 0.00				5x			14/12/24 DAS 36 9-89

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width: 100%;"> <tr> <td>Skid-tube ☐</td> <td>Crosstube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐															
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Large Fab ☐	Composite ☐	Supplier ☐																

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other
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Work Order ID 126524

126524

Page 3

Wednesday, November 12, 2014 10:37:43 A

Item ID: D3649-041 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Tunnel Bottom Panel Assy
 Start Date: 11/12/2014 Start Qty: 5.00 ***5*** Cust Item ID:
 Required Date: 11/12/2014 Req'd Qty: 5.00 ***5*** Customer:
 Reference:

Approvals: Process Plan: Date: Tooling: Date: Run Start ***NR1***
 QC: Date: SPC (Y/N): Date: Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160	QC5- Inspect part completeness to step on W/O	0.00							
160									
QC	Memo	0.00							DAS 9 9-89
Quality Control									
170	Identify as per dwg & Stock Location: <i>Stack</i>	0.00							
170									
Packaging	Memo	0.00							JAN 07 2015
Packaging									DAS 66 9-89
180	QC21- Final Inspection - Work Order Release	0.00							
180									
QC	Memo	0.00							MLJ 15-01-08
Quality Control									

Handwritten signature/initials

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width:100%;"> <tr> <td style="width:25%;">Skid-tube ☐</td> <td style="width:25%;">Crosstube ☐</td> <td style="width:25%;">Water Jet ☐</td> <td style="width:25%;">Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐															
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Large Fab ☐	Composite ☐	Supplier ☐																

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other
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Picklist Print

Wednesday, November 12, 2014 10:37:49 AM

Page 1

Work Order ID: 126524

126524

Parent Item: D3649-041

D3649-041

Parent Item Name: Tunnel Bottom Panel Assy

Start Date: 11/12/2014

Required Date: 11/12/2014

Start Qty: 5.00

Required Qty: 5.00

Comments: IPP Rev:A New Issue 07-09-26 EC verified by: DD
IPP Rev:B ECN 1113P 08-01-22 DD verified by: EC
IPP Rev:C Ecn1162 08-04-02 DD verified by:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
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MS20427M3-3		Purchased	No			110	Each	608.0000	88	440			DAS
-------------	--	-----------	----	--	--	-----	------	----------	----	-----	--	--	-----

MS20427M3-3

Rivet

Location

Loc Qty

Loc Code

GA

10

121114

10

ST311

598

m129864

598

150

sf

260.2272

6.069

32

**

DAS
23
9-89

M304S26GA

Purchased

No

M304S26GA

304/316 0.018 SHEET

Location

Loc Qty

Loc Code

MAT020

260.2272

122753

26

123135

54.689

m130650

179.5382

150

Each

98.0000

22

110

**

DAS
36
9-89

MS21060-3K

Purchased

No

MS21060-3K

Nut Plate

Location

Loc Qty

Loc Code

ST302

98

m129864

66

m129913

32

23

M131153

872

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width: 100%;"> <tr> <td>Skid-tube ☐</td> <td>Crosstube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐															
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Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other
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Picklist Print

Page 2

Wednesday, November 12, 2014 10:37:49 AM

Work Order ID: 126524

126524

Parent Item: D3649-041

D3649-041

Parent Item Name: Tunnel Bottom Panel Assy

Start Date: 11/12/2014

Required Date: 11/12/2014

Start Qty: 5.00

Required Qty: 5.00

MS21062-3K

Purchased

No

150

Each

68.0000

22

110

**

MS21062-3K

Nut Plate

DAS
36
9-89

14/12/24

Location

Loc Qty

Loc Code

ST302

68

124316

3

124329

1

M129913

14

M130822

50

20

M131153

90x

Wednesday, November 12, 2014 10:37:49 AM

Shop Packet Print

Page 2

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width: 100%;"> <tr> <td>Skid-tube ☐</td> <td>Crosstube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
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Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
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FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other
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DART AEROSPACE LTD		Work Order:	126524
Description: Tunnel Bottom Panel		Part Number:	D3649-1
Inspection Dwg: D3649	Rev: B	Page 1 of 2	

FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
Ø0.098	+0.004/-0.001	0.098"	-		✓	Jkmo1
Ø0.196	+0.005/-0.001	0.196"	-		✓	
Ø0.250	+0.005/-0.001	0.252"	-		✓	
0.400	+/-0.010	0.400"	-		✓	
0.385	+/-0.010	0.385"	-		✓	
0.250	+/-0.010	0.250"	-		✓	
44.57	+/-0.030	44.57"	-		T	
11.70	+/-0.030	11.70"	-		✓	Jkmo9
3.370	+/-0.030	3.370"	-		✓	
13.76	+/-0.030	13.76"	-		T	Jkmo7
4.300	+/-0.010	4.300"	-		✓	
10.11	+/-0.030	10.11"	-		✓	
12.90	+/-0.030	12.90"	-		T	
16.61	+/-0.030	16.61"	-		T	
15.80	+/-0.030	15.80"	-		T	
3.950	+/-0.010	3.950"	-		✓	
0.42	+/-0.030	0.42"	-		✓	
0.41	+/-0.030	0.41"	-		✓	
0.85	+/-0.030	0.85"	-		✓	
19.64	+/-0.030	19.64"	-		T	
0.54	+/-0.030	0.54"	-		✓	
1.400	+/-0.010	1.400"	-		✓	
2.63	+/-0.030	2.63"	-		✓	
2.93	+/-0.030	2.93"	-		✓	
1.49	+/-0.030	1.49"	-		✓	
5.98	+/-0.030	5.98"	-		✓	
0.54	+/-0.030	0.54"	-		✓	
2.20	+/-0.030	2.20"	-		✓	
2.75	+/-0.030	2.75"	-		✓	
2.48	+/-0.030	2.48"	-		✓	

DART AEROSPACE LTD		Work Order:	126524
Description: Tunnel Bottom Panel		Part Number:	D3649-1
Inspection Dwg: D3649	Rev: B	Page 2 of 2	

FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article
 ☐ Prototype

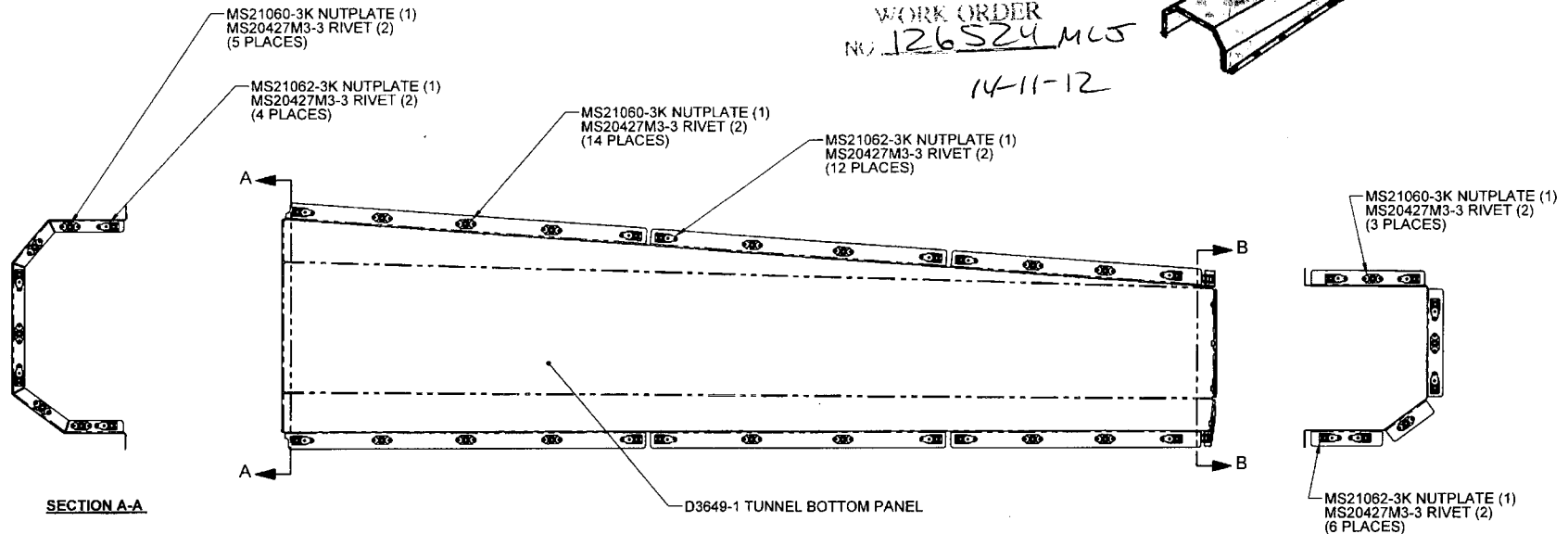
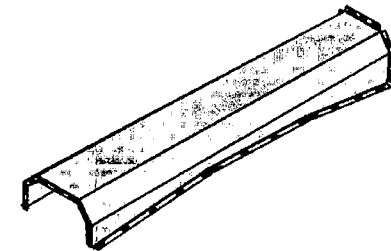
Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
1.16	+/-0.030	1.16"	-		✓	
3.38	+/-0.030	3.38"	-		✓	
2.00	+/-0.030	2.00"	-		✓	
0.90	+/-0.030	0.90"	-		✓	
16.64	+/-0.030	16.64"	-		T	
0.48	+/-0.030	0.48"	-		✓	
13.80	+/-0.030	13.80"	-		T	
0.46	+/-0.030	0.46"	-		✓	
11.76	+/-0.030	11.76"	-		✓	
1.23	+/-0.030	1.23"	-		✓	
0.88	+/-0.030	0.88"	-		✓	
18.46	+/-0.030	18.46"	-		T	
5.23	+/-0.030	5.23"	-		✓	
1.932	+/-0.010	1.932"	-		✓	
1.943	+/-0.010	1.943"	-		✓	
5.02	+/-0.030	5.02"	-		✓	
1.820	+/-0.010	1.820"	-		✓	
0.70	+/-0.030	0.70"	-		✓	
2.100	+/-0.010	2.100"	-		✓	
2.33	+/-0.030	2.33"	-		✓	
0.94	+/-0.030	0.94"	-		✓	
3.30	+/-0.030	3.30"	-		✓	
1.900	+/-0.010	1.900"	-		✓	
0.61	+/-0.030	0.61"	-		✓	

Measured by:	DAS 23 9-89	Audited by:	DAS 23 9-89	Prototype Approval:	N/A
Date:	14-11-13	Date:	NOV 14 2014	Date:	N/A

Rev	Date	Change	Revised by	Approved
A	08.04.17	New Issue	P/O D3649-041 KJ/DD	

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NO. 126524 MJS

14-11-12



SECTION A-A

D3649-1 TUNNEL BOTTOM PANEL

SECTION B-B

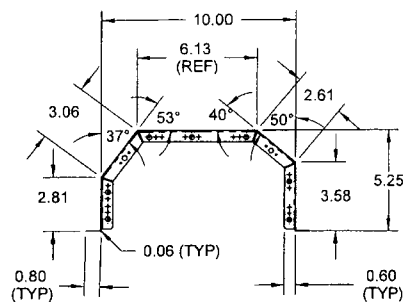
D3649-041 BOTTOM PANEL ASSEMBLY

PART LIST

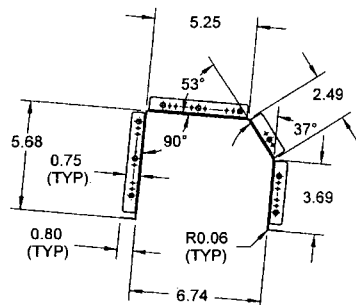
QTY -041	PART NUMBER	DESCRIPTION
X	D3649-041	TUNNEL BOTTOM PANEL ASSY.
1	D3649-1	TUNNEL BOTTOM PANEL
88	MS20427M3-3	RIVET
22	MS21060-3K	NUTPLATE
22	MS21062-3K	NUTPLATE

B	PAGE 3: MS20427M3 WAS MS20427M-3	RF	08.01.07
A	NEW ISSUE	RF	07.11.07
REV.	DESCRIPTION	BY	DATE
DESIGN	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA DRAWING NO. D3649 REV. B TITLE BOTTOM PANEL ASSEMBLY SCALE 1:5 COPYRIGHT © 2007 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	
DRAWN	RF		
CHECKED	IE		
MFG. APPR.	RF		
APPROVED	RF		
DE APPR.	RF		
DATE	08.01.07		

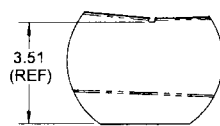
RELEASED
28.03.28.11



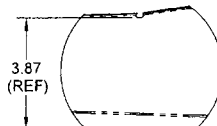
SECTION C-C



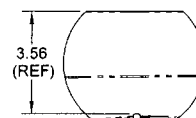
SECTION D-D



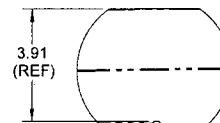
DETAIL E



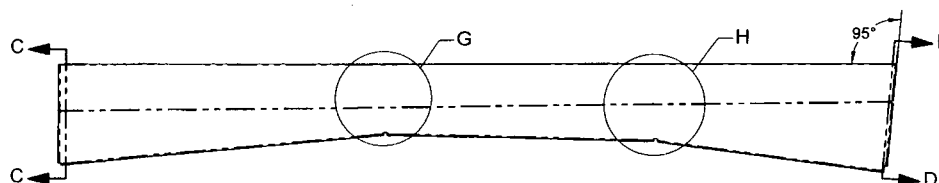
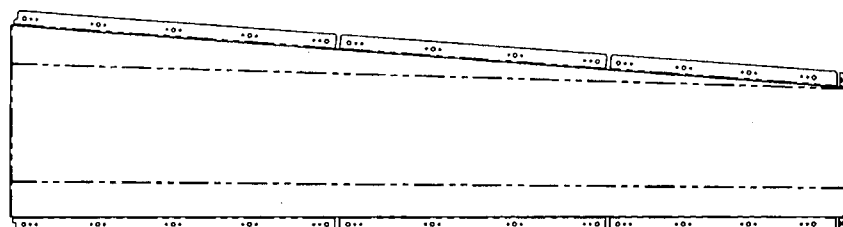
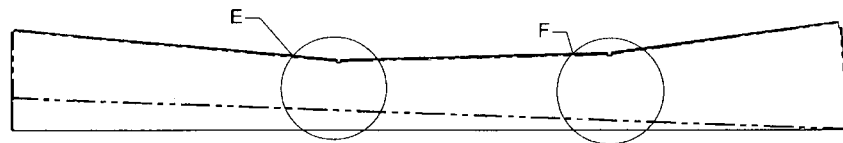
DETAIL F



DETAIL G



DETAIL H



D3649-1 TUNNEL BOTTOM PANEL
(MAKE FROM D3649-1F)

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08-07-27

DESIGN	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
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MFG. APPR.		D3649	SHEET 2 OF 3
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DE APPR.		BOTTOM PANEL ASSEMBLY	1:6
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